

REMARKS

Claims 23 through 44 pending and under consideration.

The sole issue remaining in this application is an obviousness rejection of claims 23 through 44 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,593,839 to Nakayama et al. in view of U.S. Patent No. 6,512,437 to Jin et al., Japanese Patent Publication No. 61/167,352 to Ryoji and European Patent Publication No. 440865 to Hjortsberg et al.

On December 19, 2007, the undersigned conducted an interview with the Examiner. The Examiner's time of preparing for and conducting the interview is acknowledged and gratefully appreciated.

Independent claim 23 recites a wire winding formed of a braided wire having five to one hundred individual wires that are electrically insulated from one another, the individual wires having an individual wire diameter within the range of 10 mm to 50 mm. The Examiner relies upon Nakayama et al. for this feature. This reference uses a braided wire, each wire having a diameter of 0.08 mm. See column 4, lines 25 through 30 of the reference. Thus, the wire diameter of the reference is 80 mm, outside of the claimed range of from 10 mm to 50 mm. Nakayama also describes a core gap of 0.7 millimeters, whereas the claims require a core width of 2.0 mm to 10 mm.

The Examiner cites Jin et al. for the claimed core gap. Jin et al. describes the core gap at column ten, lines eleven through sixteen. The claims require a core gap of 2.0 mm to 10 mm. To the contrary, Jin et al. describes a core gap of 1.0 mm, outside the claimed range. The application describes throughout the importance of the claimed core gap. For example, paragraph [0007] describes that it was surprisingly found that even if an AC voltage of several hundred volts is used to activate an inductive component, a relatively high quality Q can be achieved using the claimed gap width. Ordinarily, one would expect a smaller gap width. Jin et al. makes it clear that 1.0 mm is considered to be a large core gap (even though this is outside the claimed range). For example, column three, lines 61 through 65 of Jin et al. describes that it is possible to inhibit a drop of a coupling condition between coils even if the gap between the cores is enlarged. Accordingly, Jin et al. suggests that the gap should not be larger than 1.0 mm.

In summary, even if the references are combined as suggested by the Examiner, none of the references suggest a wire diameter of 10 to 50 mm and none of the references suggest a gap width of 2 to 10 mm.

In addition, it is submitted that it would not have been obvious to combine the references. The Examiner cites column three, lines 63 through 67 and column 4, lines one through five as the motivation for combining Jin et al. and Nakayama et al. The Examiner refers to high and low transmission signals. However, it does not appear that the excerpts cited by the Examiner mention high and low transmission signals. On the other hand, high and low frequencies are mentioned at column three, lines 57 through 60. The reference teaches that to accommodate both high and low frequencies, the number of windings should be adjusted. It does not appear that there is any relationship between the high and low frequencies mentioned in Jin et al. and the gap width.

In addition to the above, the Examiner's attention is called to the deficiencies regarding the heat sink and cooling device. As described spanning pages seven and eight of the June 22, 2007 amendment, Ryoji (Kumazawa) fails to disclose using a film and a casting compound that are "polymer-thermally conductive filler composite materials." Instead, the reference describes using "glass tape" as one material and a no solvent epoxy resin as another material.

Although several office actions have issued and the Examiner is now relying upon four references, there are still significant deficiencies in the rejection. It is believed that this alone shows the invention would not have been obvious. It is submitted that the rejection should be withdrawn.

There being no further outstanding objections or rejections, it is submitted the application is in condition for allowance.


Serial No. 10/521,742

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Respectfully submitted,

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Date: December 21, 2007

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